

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: GRAHAM et al.)
) Group Art Unit: 2617
Serial No.: 10/811,342)
) Confirmation No. 1575
Filed: March 26, 2004)
) Examiner: SAMS, Matthew C.
For: **METHOD AND APPARATUS FOR**)
 FORECASTING GROWTH OF)
 WIRELESS TELECOMMUNICATIONS)
 SYSTEMS)

PRE-APPEAL BRIEF AND REQUEST FOR FURTHER REVIEW

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Commissioner for Patents
P.O. Box 1450
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July 5, 2007
Filed Electronically

Sir:

Applicants request review pursuant to the Pre-Appeal Brief Conference Pilot Program. 1296 Off. Gaz. Pat. Off. 67 (12 July 2005, and extended 10 January 2006).

This Pre-Appeal Brief is filed with a Notice of Appeal and the requisite fee of \$500 for the Notice of Appeal. This Pre-Appeal Brief is filed within three months of the mailing date of the final office action, and thus no extension of time is believed to be due. However, if an extension of time is needed, please consider this a request therefor. The Commissioner is hereby authorized to charge any additional fees that may be required, or credit any overpayment, to Deposit Account Number **501513**.

CERTIFICATE OF EFS-WEB TRANSMISSION

I hereby certify that this correspondence is being transmitted to the U.S. Patent and Trademark Office via EFS-Web on the date indicated below.

/Michelle E. Kandcer/

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July 5, 2007

Date

REMARKS

Currently Pending Claims

Claims 1-30 remain pending in this application. As explained in more detail below, Applicants submit that all claims are in condition for allowance and respectfully request such action.

The Claim Rejections Under 35 U.S.C. §102(e) are Improper

Claims 1 – 9, 12, and 14 – 30 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 7,142,868 of *Broyles et al.* Claims 10, 11, and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Broyles et al.* These rejections are erroneous and cannot be sustained. The Applicants respectfully submit that the invention as recited in Claims 1-30 is neither disclosed in nor made obvious by the *Broyles* reference.

The present invention relates to a method and apparatus for forecasting growth of a wireless telecommunications system. The growth forecasting method includes determining the current voice and data traffic level for the wireless system, determining current minutes of use (MOU) for the current wireless system, estimating future MOU for the wireless system, and forecasting a future traffic level for the wireless system based on the system's current traffic, current MOU, and future estimated MOU. By the previous amendments to the claims, Applicants clarified that the current MOU is the number of minutes used over a given time period. Thus, the present invention uses **two different metrics** to forecast the future traffic level. The first metric is the current traffic level, which represents the sum of the average traffic for all system sectors. In short, the system traffic level is a "snapshot" of the system traffic at a particular time (or duration of time). The second metric is the current MOU, which represents the cumulative minutes used by the subscribers over a given period of time. Thus, the present invention uses two different metrics to estimate a future traffic level.

If an analogy were to be drawn to traffic on a highway, then the system traffic would be analogous to the number of cars on the highway at a peak hour. The highway can only accommodate a certain number of vehicles at any given time, and thus, its

capacity is a limiting factor. The current MOU would be analogous to the number of miles driven by all the drivers on the highway for a given period of time, such as a week. Clearly, the metric representing MOU is very different from the metric representing the average system traffic at any given moment.

Broyles et al. simply does not disclose, teach or suggest using the two claimed metrics to forecast the future traffic level. *Broyles et al.* uses only a traffic level, or “Erlang traffic” but does ***not disclose using any cumulative minutes used (i.e., MOU)*** by the subscribers of the system as a metric to forecast a future traffic level. For example, in Claim 1 the following features are claimed but nowhere disclosed in *Broyles et al.*:

- (1) “determining the current minutes of use (MOU)....”;
- (2) “estimating the future minutes of use (MOU)....”;
- (3) forecasting the future system traffic based on “the current system MOU”; and
- (4) “the future MOU”.

Thus, Claim 1 recites at least four features not found in the *Broyles* reference. Moreover, in the claims the Applicants recite both “system traffic” and “minutes of use (MOU)”. Those skilled in the art might well equate “system traffic” with the “Erlang traffic” disclosed in the *Broyles* reference. But it strains credibility to argue that the “Erlang traffic” of *Broyles et al.* could also be considered to be the separate and different quantity of “minutes of use (MOU)” recited in the claims.

In the Final Office Action of June 4, 2007, the Examiner cites to passages in *Broyles* that relate to erlang traffic. However, Applicants reiterate that “[v]oice or data traffic capacity typically is measured in erlangs, which is defined as the amount of voice or data traffic (e.g., wireless voice or data traffic) in cumulative hours (i.e., aggregating all calls as if back-to-back) per hour of time.” (see page 4, paragraph 17 of the Applicants’ specification). By contrast, “the current MOU for the system 10 typically is available from a suitable source of the service provider, e.g., from the system accounting department or marketing department of the service provider.” (see page 6, paragraph 22 of the Applicants’ specification). Accordingly, erlang traffic is a metric that is quite different from the MOU metric. There is just simply no mention in *Broyles* of

using current or future MOU to estimate growth. Rather, *Broyles* forecasts growth using only metrics related to erlang traffic.

The remaining independent claims 17, 22, and 26 all recite using the current system traffic level and the current minutes of use as two metrics to forecast the future traffic level. Applicants respectfully submit that *Broyles et al.* does not disclose the use of any MOU measurement or estimation.

For at least the reason that Claims 2-16, 18-21, and 27-30 incorporate the limitations of the independent claims from which they depend, these dependent claims are patentable over the art of record for at least the reasons set forth above with respect to the independent claims. Furthermore, these dependent claims include features that are not disclosed, taught, or suggested by *Broyles et al.* For example, *Broyles et al.* does not disclose, teach, or suggest "estimating the future MOU in such a way that the resulting MOU estimation includes an MOU buffer amount," as recited in claim 10.

Thus, the Examiner has failed to establish proper §102(e) and §103(a) rejections over *Broyles et al.* because *Broyles et al.* clearly lacks at least one limitation of the claims. Accordingly, the Applicants respectfully submit that the invention as recited in Claims 1-30 is neither disclosed in nor suggested by the *Broyles* reference. Therefore, the Applicants respectfully request that the rejections of claims be withdrawn and that a Notice of Allowance be issued in this case.

Respectfully submitted,
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